

## **PART 162-03 RIVERS CLASSIFICATIONS**

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### **03-01 DEVELOPMENT OF CLASSIFICATIONS**

In its endeavor to classify the rivers, lakes, ponds, and estuaries in the state, the Rivers Council's approach focused on the availability and utilization of existing resources. The classification process included a review of the existing and potential uses of rivers, lakes, ponds, and estuaries, DEM's water quality standards, CRMC's water use classifications and meetings with the public and interested parties, and especially the knowledge of local watershed organizations.

### **03-02 CLASSIFICATION SYSTEMS**

The Federal Clean Water Act established a goal that the waters of the United States should provide for the protection and propagation of fish, shellfish, and wildlife, and provide for recreation in and on the water<sup>1</sup>. The state's DEM has been delegated authority to regulate water resources to achieve this federally established goal. However, for a variety of reasons, actual water quality in a river, lake, pond, or estuary, may not meet the established standards.

The Rivers Council has worked to develop a classification system which will promote the establishment of river, lake, pond, estuary, and adjacent land uses that work toward the attainment of the goals of the Clean Water Act. The designations in the *Rivers Policy and Classification Plan* must be consistent with the DEM classifications so that uses are not promoted or proposed that could place public health or environmental integrity at risk. Differing from the DEM classification system, the Rivers Council attempted to classify the freshwater rivers of the state in a holistic approach by integrating water quality objectives with land uses and land use management. The classification of estuaries adopts the CRMC classifications. As such, the following classifications are based on the use and potential use of rivers, estuaries, watersheds, land use, habitat, open space values, historic and cultural values, as well as water quality. There are existing policies and procedures for commenting on and revising CRMC's water use classifications and DEM's water quality classifications. Watershed councils are encouraged to engage in reviewing the classifications of their rivers with the appropriate agency.

Rhode Island law, Section 46-28-7(d), specifies that the classification plan of the Rivers Council contain a minimum of three classes: pristine rivers, recreational rivers, and working rivers. The Council has expanded on the minimum requirement and developed five freshwater classes: pristine; water supplies; open space; recreational; and working. For estuaries, the Council has adopted CRMC's six water use categories: Type One: Conservation Areas; Type Two: Low-Intensity Use; Type

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<sup>1</sup> Clean Water Act, Title 1, Section 101

Three: High Intensity Boating; Type Four: Multipurpose Waters; Type Five: Commercial and Recreational Harbors; Type Six: Industrial Waterfronts and Commercial Navigation Channels.

Discussed within the various classifications are the terms contact and non-contact recreational uses. Contact uses means there is prolonged contact with the waterbody. Examples of contact recreational uses are swimming, wading, and water-based fishing. Non-contact uses involve minimal contact with the water and include canoeing, boating, and land-based recreational activities. The Council followed a policy of recommending contact versus non-contact recreational uses based upon not only knowledge of bacterial levels within the water but also on known or potential toxic pollutant threats from current land-based activities. Where a river or river segment is classified as suitable for swimming and other contact recreational activities, it can be surmised that the river or river segment is also suitable for canoeing or other non-contact recreational activities. The only caveat to this logic would be if there were enough flow or water in the river segment to physically allow these activities to occur. The Council has attempted to note such low flow areas within the individual classifications.

## **Freshwater Classifications**

***Pristine Waters*** This category includes rivers or sections of rivers that are free of impoundments and are generally inaccessible except by trail, with watersheds or shorelines essentially undisturbed and primitive, and water relatively unpolluted. It also includes Significant Wildlife Habitat and Natural Area Rivers, which are rivers, lakes, streams, tributaries, and their associated wetlands that support communities of flora or fauna significant or unusual to Rhode Island. This includes unique critical habitat with rare or endangered species notwithstanding lower than high water quality conditions. Pristine waterbodies may include Special Resource Protection Waters (SRPWs).

***Water Supplies*** These are public drinking water sources, which include:

- Rivers, impoundments, and lakes used for water supply purposes; and/or
- Tributaries to water supplies; and/or
- Areas officially designated as potential public drinking water supplies.

These waters may include watersheds that directly feed or replenish existing and/or potential public drinking water supplies.

***Open Space Waters*** This category includes waterbodies that have high scenic value, have relatively undeveloped banks, provide good fish and wildlife habitat, support or could support recreational use, and are typically situated in low-density rural areas (although they may traverse historic village centers). They may function as open space corridors, natural areas, or greenways. These waters are generally

suitable for both contact recreation such as swimming and fishing, and non-contact recreation such as canoeing.

**Recreational Waters** This category includes waterbodies, rivers, or river segments that are readily accessible, that may have some development along their shorelines, and may have undergone some impoundment or diversion in the past. These shall include sections of rivers along mill villages, but shall not include sections where development may be characterized as urban. These waters are typically situated in suburban areas and are generally suitable for canoeing and other non-contact recreational activities. They may function as open space corridors or greenways.

**Working Waters** These waterbodies, rivers, or river segments are readily accessible, have development along their shorelines, have undergone impoundment or diversion, and adjoin development that may be classified as urban.

### **Coastal – Estuarine Water Classifications**

The Coastal Resources Management Council (CRMC) was created by R.I.G.L. 46-23 in 1971. Part of CRMC's mission has been the description and classification of tidal waters and coastal ponds falling under their jurisdictional authority. Accordingly, for those areas already classified by the CRMC, the Rivers Council will adopt the existing CRMC classifications. In some instances, there is a close correlation between the CRMC definitions used for coastal waters and the definitions the Rivers Council has adopted for fresh waters. However, there are other cases where no correlation exists. CRMC includes waters outside of the purview of the Rivers Council. The following definitions are quoted from *The State of Rhode Island Coastal Resources Management Program, as amended* (a.k.a the "Red Book").

**Type 1 Conservation Areas** Included in this category are (1) water areas that are within or adjacent to the boundaries of designated wildlife refuges and conservation areas, (2) water areas that have retained natural habitat or maintain scenic values of unique or unusual significance, and (3) water areas that are particularly unsuitable for structures due to their exposure to severe wave action, flooding, and erosion.

**Type 2 Low-Intensity Use** This category includes waters in areas with high scenic value that support low-intensity recreational and residential uses. These waters include seasonal mooring areas where good water quality and fish and wildlife habitat are maintained.

**Type 3 High-Intensity Boating** This category includes intensely utilized water areas where recreational boating activities dominate and where the adjacent shorelines are developed as marinas, boatyards, and associated water-enhanced and water-dependent businesses.

**Type 4 Multipurpose Waters** This category includes (1) large expanses of open water in Narragansett Bay and the Sounds which support a variety of commercial

and recreational activities while maintaining good value as a fish and wildlife habitat; and (2) open waters adjacent to shorelines that could support water-dependent commercial, industrial, and/or high-intensity recreational activities.

**Type 5 Commercial and Recreational Harbors** These waters are adjacent to waterfront areas that support a variety of tourist, recreational, and commercial activities.

**Type 6 Industrial Waterfronts and Commercial Navigation** These water areas are extensively altered in order to accommodate commercial and industrial water-dependent and water-enhanced activities.

### **03-03 CLASSIFICATIONS BY WATERSHED**

This section of the Plan describes the state's watersheds as well as their respective segments. The appropriate hydrologic unit code (HUC) is noted after the watershed name. Following the description, the segment classification is noted in parentheses.

Information regarding the classification of estuarine portions of watersheds should be obtained from the Coastal Resources Management Council. While not reprinted within this document, CRMC's classifications are adopted by the Rivers Council by reference.

#### **03-03-01 Lower Blackstone River Watershed (HUC-10)**

The Blackstone River Valley, in northern Rhode Island and Massachusetts, is the birthplace of the industrial revolution in the United States. The Valley's national, historical and cultural importance has been recognized by Congress through the creation of the Blackstone River Valley National Heritage Corridor. Not only did the America's textile industry begin along the banks of the Blackstone, but it flourished there as well. At the turn of the century, it was claimed that the Blackstone was "the hardest working river, the most thoroughly harnessed to the mill wheels of labor in the United States, probably the world...."(*Blackstone River Valley National Heritage Corridor Commission and State Planning Council, State of Rhode Island and Providence Plantations, Cultural Heritage and Land Management Plan for the Blackstone River Valley National Heritage Corridor, September 1990, p. iv*)

The Blackstone River Valley National Heritage Corridor Commission has stated, "The Blackstone River Valley is one of the Nation's richest and best preserved repositories of landscapes, structures, and sites that recall a neglected era of the American past: the Age of Industry" (*Ibid., p.1*). Regarding the Heritage Corridor, the Commission has noted, "The Blackstone River Valley is an unusual 'park' because it is a living, human environment...."(*Ibid., p. 1*).

There are both a proud and a sad legacy from the Age of Industry. The proud legacy is an extraordinary heritage; the sad legacy is one of industrial pollution and a period of economic decline. The Blackstone River was once principally a source of power and secondarily a way to dispose of waste; it was regarded as one of the nation's most polluted rivers. Now, the river is perceived as a cultural and environmental asset. The Blackstone Valley has a vibrant Tourism Council that offers interpreted and historical riverboat tours.

In total, the Blackstone River watershed comprises approximately 472 square miles, most of which (373 square miles) is in Massachusetts. In Rhode Island, the watershed encompasses all or a portion of the following communities: Burrillville, Central Falls, Cumberland, Glocester, Lincoln, North Smithfield, Pawtucket, Smithfield, and Woonsocket.

Interstate water pollution control is a major issue on the Blackstone. The headwaters are in Worcester, and the Upper Blackstone Water Pollution Abatement District facility in Worcester is the largest single source of pollution entering the river. Water quality degradation, however, is no longer accepted or overlooked, as exemplified by the Interstate Blackstone River Initiative being conducted by the Massachusetts Department of Environmental Protection, RIDEM, and EPA.

In Rhode Island, the rivers, streams, reservoirs, and ponds in the watershed supply public drinking water; provide recreational opportunities including swimming, boating, and fishing; provide source water for power plant cooling and other industrial purposes; power hydro-electric facilities; and serve as the receiving body for permitted wastewater discharges. This diversity of uses is the greatest of any Rhode Island watershed. This marvelous and historical diversity is also a cause of conflict as the multiple uses often compete with each other. Stresses and problems in the watershed are numerous and include: contaminated sediments; the impact of permitted wastewater discharges on downstream water quality; the presence of hazardous waste sites, old dumps, and landfills that cause nonpoint source pollution; nonpoint sources of pollution that affect habitat and water quality and threaten drinking water supplies; and water withdrawals.

Nevertheless, conditions on the Blackstone River itself are improving. Governmental and public efforts to reduce pollution and protect water resources are having an effect, and the healing processes of nature are at work. Fishing is being restored, new parks developed, and canoeing and boating increasing, even in urban areas. Expectations for the Blackstone River as a natural resource and an environmental asset are rising. The river classifications support this upward trend.

## Segment Classifications in the Lower Blackstone River Watershed

1. **Wallum Lake**, located in the northwest portion of Burrillville and extending into Massachusetts, is a drinking water supply for Zambarano Hospital, but is approved for contact recreational use in Massachusetts (swimming and boating). Hunting and hiking are supported within the Buck Hill Wildlife Management Area and the Douglas State Forest in Massachusetts. Since Wallum Lake is a drinking water supply, there is a buffer zone around the Rhode Island portion of the lake; swimming and fishing from Buck Hill are not allowed. Endangered species are documented in the eastern and southern high-quality tributary streams to the Lake. **(Water Supply)**
2. The **Clear River from Wallum Lake to Wilson Reservoir** has limited recreation potential but is valued as open space and for habitat resources. A point located three-quarters of a mile downstream from Wallum Lake and one-half mile above the Wilson Reservoir is the receiving water for a permitted wastewater discharge from Zambarano Hospital. **(Open Space)**
3. The **Wilson Reservoir**, located in central Burrillville, is used for recreation and open space. Although suitable for swimming and boating, these recreational uses are threatened by the presence of failed or poorly functioning septic systems. **(Open Space)**
4. The **Clear River from Wilson Reservoir to its confluence with the Chepachet and Branch Rivers** is suitable for recreation, however use is limited by low flows. In the last mile of the river, contact recreational activities are limited due to the permitted wastewater discharge from the Burrillville Wastewater Treatment Facility. **(Open Space)**
5. The **Pascoag Reservoir**, (also known as **Echo Lake**), and the **Pascoag River and its tributaries to its confluence with the Clear River** are situated in south-central Burrillville. Valued as recreational open space, the Reservoir is also suitable for contact recreation (swimming and fishing) and has two state boat ramps. **(Open Space)**
6. The **Nipmuc River and Pond** are located in north central Burrillville and are generally inaccessible. These pristine water bodies are valued as open space. **(Pristine)**
7. **Spring Lake** is suitable for recreational swimming and boating. **(Open Space)**
8. **Smith & Sayles Reservoir** and the connected **Keech Pond** are located in Glocester and are suitable for swimming and boating, as well as fishing. Critical habitat areas are located at the northeast end of the Reservoir. **(Open Space)**

9. The **Chepachet River and its tributaries from Smith and Sayles Reservoir to its confluence with the Clear and Branch Rivers** are stocked for fishing and have open space value. *(Open Space)*
10. The **Branch River from its confluence with the Clear and Chepachet Rivers to the Slatersville Reservoir** is suitable for swimming and fishing. It has recreational open space value, and mill villages are located along its corridor. *(Open Space)*
11. The **Tarklin River and Pond** flow through Glocester and Burrillville to the Slatersville Reservoir. The pond is used for fishing; both the pond and river have recreational open space value. *(Open Space)*
12. **Slatersville Reservoir** (both upper and lower) has recreational value and is designated as swimmable and fishable. It has a state boat ramp and fishing club access. Its current condition with respect to contact recreation is, however, marginal due to coliform and metals levels that exceed state standards. The Land Resource and Recovery landfill superfund site is located near the Slatersville Reservoir. *(Open Space)*
13. The **Branch River from the Slatersville Reservoir to its confluence with the Blackstone River** at the Blackstone Gorge in North Smithfield has scenic and open space value with mill villages located along the river corridor. It is suitable for non-contact recreation. *(Recreational)*
14. The **Blackstone River from the Blackstone Gorge to the Rhode Island-Massachusetts state line** is suitable for non-contact recreation. White-water rafting is occasionally possible in this segment. The Massachusetts and Rhode Island environmental departments have purchased the riverbanks on both sides of the Gorge, where a bi-state park will be developed. *(Open Space)*
15. The **Blackstone River from the Rhode Island state line to Thundermist Falls** in Woonsocket is suitable for non-contact recreational activities. Mills with historical value are located along the river corridor. The Ocean State Power Plant, located in Burrillville, has a withdrawal pipe just upstream of the Thundermist Dam. *(Recreational)*
16. The **Blackstone River from the Thundermist Falls to Manville Dam** is a multiple use urbanized open space with significant recreational value. Primary contact recreational activities are limited immediately downstream of the permitted discharge from the Woonsocket Wastewater Treatment Facility. *(Recreational)*

17. The **Blackstone River from Manville Dam to the Valley Falls Marsh** is classified as non-contact recreational. This river segment abuts significant amounts of the Blackstone River State Park and bikepath as well as other local parks that provide open space. This section of the River traverses an area that contains historic mills but also less pleasant reminders of its industrial past including an EPA designated Superfund site and a landfill. However, its scenic beauty and linkage to the old canal system contributes to this section's active use by canoers and kayakers. (*Open Space*)
18. **Valley Falls Marsh**, identified as an important wetland system in Rhode Island, provides open space and valuable habitat in a relatively urbanized setting. Located north of the City of Central Falls in the Towns of Lincoln and Cumberland, it is the largest freshwater wetland in northern Rhode Island. From the Blackstone River, there is boat access to the marsh for fishing. (*Open Space*)
19. The **Blackstone River from the Valley Falls Marsh to the Main Street Bridge in Pawtucket** is classified for multiple use in an urbanized open space. In addition to its historic value, this segment provides the setting for local parks, as well as the Slater Mill. (*Recreational*)
20. The **Woonsocket Reservoirs and Crookfall Brook** and its tributaries are components of a public drinking water supply. The main reservoir, identified as Reservoir No. 3, is located in Smithfield and North Smithfield. Crookfall Brook conveys water from Reservoir No. 3 through Reservoir No. 2 to Reservoir No. 1, the terminal reservoir and the water treatment facility. Mill sites, historical resources, and archeological remains can be found along the Crookfall Brook corridor. (*Water Supply*)
21. **Sneech Pond** is a public drinking water supply for the Town of Cumberland. It is noted for its unique aquatic habitat value. (*Water Supply*)
22. **Diamond Hill Reservoir, Arnold Mills Reservoir, Abbott Run, and Happy Hollow Reservoir** are components of the City of Pawtucket's water supply system. The water quality in Abbott Run, which flows into Massachusetts and returns to Rhode Island, is threatened due to urban development. (*Water Supply*)



### **03-03-02 Woonasquatucket River Watershed (HUC-12)**

Ever since Roger Williams arrived in 1636 and joined the Native Americans who lived in the region, the Woonasquatucket River valley has been settled by a wide variety of people from around the world. From the early settlers who farmed the land, to the immigrants of the 19th Century who built and worked in the mills, to the new wave of residents in the 20th century -- each group of people has left their mark on the watershed. They farmed, fished, and built industries, leaving us with a legacy of farmhouses, mills, churches, and homes that contribute to the fabric of our communities. At the mouth of the river the City of Providence grew to become the capitol of Rhode Island as well as a center for art, industry, and culture.

In 1998, the Woonasquatucket River was designated an American Heritage River, a coveted designation which honors the historic legacy of the river and the continuing value of the river as an environmental, economic, recreation, and cultural asset to the state of Rhode Island. From rural areas in northern Rhode Island to the historic industrial areas in the lower urban stretches of the river, the Woonasquatucket River continues to reflect its proud history. Richard Greenwood, RI Historical Preservation and Heritage Commission wrote:

"...the Woonasquatucket River valley retains the distinguishing features of its industrial heyday to a remarkable degree, from the placid ponds and early mill villages upstream, to the red brick complexes with towering chimneys that line its lower banks."

The Woonasquatucket River watershed covers 50 square miles and includes portions of Glocester, North Smithfield, Smithfield, Johnston, North Providence, and Providence. The river flows from North Smithfield and Smithfield for 19 miles south and east to WaterPlace Park in downtown Providence, where it joins the Moshassuck River to form the Providence River, which in turn flows into Narragansett Bay. The lower reaches of the river, up to the Rising Sun Dam near Donigian Park in Olneyville, rise and fall with the tide in Narragansett Bay. Native Americans called the river "Woonasquatucket" meaning "the place where the salt water ends" or the meeting of the river and the sea.

The upper reaches of the river, including Glocester and North Smithfield, remain pristine and rural in character, although unprotected land in this area is rapidly being taken over by suburban development. There are a number of protected wellhead areas in these communities, providing drinking water for much of the region's population. The Woonasquatucket's "Apple Valley" is named for the many farms, orchards, and nurseries that are found in the watershed from Johnston to Glocester. The center of the watershed, Smithfield, is predominately suburban. Active farming and a proactive land trust maintain substantial protected open space in Smithfield. From Greystone (a village on the Smithfield/North Providence border) to Providence,

the river is predominantly urban. The industrialized lower part of the Woonasquatucket River continues to reflect its historic legacy, with many remaining magnificent historic mill buildings that used the river for water power, industrial processing, waste disposal, and as a water source for steam power. From 1809 through the early 20<sup>th</sup> century, industry profoundly altered the character and course of the river. Today, these mill buildings contribute to the historic fabric of our communities, providing jobs, housing, and a distinct cultural landscape.

The pristine headwaters of the Woonasquatucket River are in North Smithfield's Nipsachuck Swamp, and in the Fort Wildlife Refuge owned and protected by the Audubon Society of Rhode Island. The Audubon Society of Rhode Island and local land trusts in Glocester, North Smithfield, and Smithfield have successfully purchased and preserved significant land parcels protecting the watershed, and new land trusts have been created in Johnston and North Providence. Most of the larger ponds and reservoirs in the rural and suburban watershed areas are impoundments created by industrial manufacturers to "store water for use during the dry months of summer, an experiment that was so successful that it was replicated on industrial rivers throughout the world." (Richard E. Greenwood, RI Historic Preservation and Heritage Commission). The dams along the urban stretch of the river were all built to create ponds to supply water and power to the mills.

Throughout the watershed, the once neglected Woonasquatucket River is experiencing a resurgence of interest and reuse. There are opportunities for hiking, fishing, swimming, and other recreational uses in the rural, suburban, and urban communities of the watershed. Scenic trails, already established by Conservation Commissions and the Audubon Society of Rhode Island, will soon be complemented by heritage markers in Providence and Johnston. The historic legacy of the river offers significant opportunities for heritage trails throughout the watershed.

Conservation initiatives in the northern communities are matched by restoration initiatives in the urban reaches of the river, where Johnston, North Providence, and Providence are once again utilizing the river as an environmental, recreational, and economic asset for their communities. Although approximately 8.2 miles of the river are impaired, there is great potential for restoring the river habitat and, remarkably, wildlife, including over one hundred bird species that can be found throughout the impaired reaches of the river. The power of the river as a catalyst for change is demonstrated in the development of the Woonasquatucket River Greenway, a project which has stimulated the ongoing restoration of 61 acres of abandoned parks and Brownfield sites, providing recreational opportunities, a bicycle path, and restored riverine habitat in Providence and Johnston.

The Rhode Island Department of Environmental Management, the University of Rhode Island, and the Environmental Protection Agency recently completed surveys that identified significant opportunities for the restoration of over 75 wetlands and 235 upland and riparian buffer sites throughout the watershed. The industrial nature of the river resulted in deterioration of the riverine habitat, with 81 percent of the

river's edges requiring restoration of vegetation. The Woonasquatucket River Watershed Council, in partnership with the above agencies, the Natural Resource Conservation Service, US Fish and Wildlife Service, NOAA, the Army Corps of Engineers (through their Urban River Restoration Initiative), and local communities and non-profit organizations, is working to systematically restore the river's habitat.

In addition to land conservation and restoration, initiatives are underway to improve the water quality of the Woonasquatucket River. The historic industrial uses of the river in the urban communities resulted in sediment contamination, which currently restrict river access to non-contact recreational uses. The Rhode Island Department of Environmental Management, the Narragansett Bay Commission, and the Environmental Protection Agency are developing long-term plans to address the remaining sources of contamination, including a Superfund site centered in North Providence and affecting the river sediment down to Lymanville Pond, and combined sewer overflows in the Providence segment of the river.

With the many efforts for restoration, the Rivers Council's hope and goal is to restore the Woonasquatucket River as a fishable and swimmable resource for its communities by 2020.

### **Segment Classifications in the Woonasquatucket River Watershed**

1. **Headwaters of the Woonasquatucket River** are located in the Fort Wildlife Refuge in North Smithfield. This Audubon Society of Rhode Island owned and managed refuge is open to the public and includes hiking trails. **(Pristine)**
2. The **Woonasquatucket River from North Smithfield to the Smithfield town line** is suitable for recreational uses, including swimming and fishing. This stretch of the river is stocked with trout. **(Open Space)**
3. **The Blunders** is a large natural area in North Smithfield with a forest, springs, and a variety of plant species and wildlife that are threatened by development. **(Pristine)**
4. **Primrose Pond** in North Smithfield, near the head of the river, is a privately owned pond, suitable for recreational uses including boating, fishing, and swimming. A small upgradient swamp is owned and managed by the North Smithfield Land Trust. **(Open Space)**
5. **Mowry Conservation Area** is a scenic natural area owned and maintained by the Town of Smithfield with over a mile of wooded hiking trails. **(Open Space)**
6. **Stillwater and Capron Ponds** in Smithfield are privately owned and are suitable for recreational purposes. The Stillwater Scenic Trail along the east side of Stillwater Pond provides fishing access to the pond. **(Open Space)**

7. **Woonasquatucket Reservoir**, locally known as **Stump Pond or Stillwater Reservoir**, is a 304 acre pond in Smithfield owned by RIDEM with a number of public access points. It is used for fishing, swimming, and boating, and features a state-owned ramp for launching boats, although there are no public beaches. **(Open Space)**
8. **Upper Sprague Reservoir** in Smithfield is actively used for recreational purposes. Upper Sprague is owned by the Providence YMCA and used for their programs for inner city youth. Water from the Upper Sprague Reservoir flows into the Lower Sprague Reservoir. **(Open Space)**
9. **Lower Sprague Reservoir** is privately owned and actively used for recreational purposes. The outfall from Lower Sprague Reservoir enters the Stillwater River. **(Open Space)**
10. **Harris Pond** is an open space area, managed by the Smithfield Land Trust. **(Open Space)**
11. **Harris Brook**, passes through Harris Pond and flows into Georgiaville Pond. **(Open Space)**
12. **Georgiaville Pond** is owned by the town of Smithfield and actively used for swimming, boating, and fishing, and features a beach with seasonal access limited to permit holders. There is a public walking trail at the pond. **(Open Space)**
13. **Cutler Brook, Shinscot Brook, and Nine Foot Brook** originate in the westernmost part of the Woonasquatucket River watershed in Glocester. They are tributaries of the river, and flow into Waterman Reservoir and Stillwater River. **(Pristine)**
14. **Philips Farm/Cutler Brook** is a land trust property protecting Cutler Brook and providing opportunities for hiking and a scenic mix of forest, fields, and wetlands. **(Pristine)**
15. **Waterman Reservoir** is fed by Cutler, Shinscott, Nine Foot, and three unnamed brooks. Located in Glocester and Smithfield, it is privately owned and used for swimming, boating, and fishing. Use of a privately owned boat ramp is available for a fee. Waterman Reservoir is the point of origin of the Stillwater River. **(Open Space)**
16. The **Stillwater River** originates at Waterman Reservoir, passes through Mill Pond, collects the outfall from Lower Sprague Reservoir and Slack Reservoir, and flows into the south end of the Woonasquatucket Reservoir in Smithfield. **(Open Space)**

17. **Slack's Pond** in Smithfield flows into a small stream which feeds the Stillwater River. **(Open Space)**
18. **Reaper Brook** flows out of **Hawkins Pond** east of Slack Reservoir, passes through the **Cedar Swamp**, a unique ecosystem along Route 44, and enters **Mountindale Pond** and then flows into the Woonasquatucket/Stillwater Reservoirs. Land owned by the town of Smithfield at the north end of Cedar Swamp includes the Willow Field Recreation Area, which has a potential for the development of walking trails. **(Open Space)**
19. **Nipsachuck Swamp** is an over 100-acre area of significant wetlands on the North Smithfield/Smithfield line. It is the source of Latham Brook. **(Pristine)**
20. **Latham Brook** originates in the Nipsachuck Swamp in North Smithfield and flows into the Woonasquatucket/Stillwater Reservoirs. **(Open Space)**
21. **Powder Mill Ledges Wildlife Refuge** also serves as the headquarters of the Audubon Society of Rhode Island. The wildlife refuge features hiking trails and frequent programs offered by the Society. A pond and stream at the site flow to the **Cedar Swamp**. **(Open Space)**
22. **Hawkins Brook** originates near the Powder Mill Ledges Wildlife Refuge, flows through **Seville Pond**, and enters the Woonasquatucket River in Esmond, south of Georgiaville Pond. **(Open Space)**
23. **Slack Reservoir**, in Johnston and Smithfield, is designated recreational, suitable for swimming and boating, and has a town beach for local residents. The Smithfield Land Trust has protected some wetlands in the watershed of Slack Reservoir. **(Open Space)**
24. The **Woonasquatucket River from the Smithfield/North Providence town line to its convergence with the Moshassuck River** in downtown Providence is suitable for non-contact recreational uses, including boating and the development of greenways and walking trails. A diversity of wetlands provides habitat for urban flora and fauna with rare plant species along an adjacent railroad right-of-way. The goal for the lower Woonasquatucket River is to complete the removal of dioxin contaminated sediment and restore the river for contact recreational uses by 2020. **(Recreational)**
25. **Greystone Mill Pond, Allendale, Lymanville, and Manton Ponds** are in North Providence and Johnston on the main stem of the Woonasquatucket River, and are suitable for canoeing and other non-contact recreational activities. **(Recreational)**

26. **Assapumsett Brook** originates in wetlands in Johnston near the Smithfield line, and enters the Woonasquatucket River at Lymanville Pond. The brook flows through the property of the Clemence Irons House (1680). **(Recreational)**
27. **The Pleasant Valley Parkway Stream** originates in a wetland near LaSalle Academy in Providence, and flows into the lower Woonasquatucket River in Providence. **(Recreational)**

### **03-03-03 Moshassuck River Watershed (HUC-12)**

The Moshassuck River has its headwaters in the Lime Rock area of Lincoln. The watershed is located in portions of the following communities: Central Falls, Lincoln, North Providence, Pawtucket, Providence, and Smithfield.

The water is very "sweet," which gives rise to habitat conditions unusual to Rhode Island. In southern Lincoln, Olney Pond, which is located in Lincoln Woods State Park, is within the watershed. This is an important public recreational resource within the greater Providence/Pawtucket urban area.

After passing through the village of Saylesville, the river becomes heavily urbanized, and its resource value is virtually obliterated as it passes through culverts adjacent to and under route I-95 in Pawtucket. Historically, this portion of the Moshassuck River was significant as part of the Blackstone Canal, and is included in the Blackstone River Valley National Heritage Corridor. The Moshassuck joins the Woonasquatucket River southeast of the State House in downtown Providence and was central to the city's recent river relocation project.

A tributary of the Moshassuck, the West River, has similar conditions. The West River has recreational value in North Providence and Lincoln, and Geneva Pond is a popular swimming area. The river, however, becomes heavily urbanized as it flows through Providence, though not so entirely obliterated as the Moshassuck.

### **Segment Classifications in the Moshassuck River Watershed**

1. From its **headwaters in Lincoln to the intersection of Wilbur Road and Route 146, the Moshassuck River** flows through lime rock preserves and is a potential water supply at the quarry site. **(Pristine)**
2. **The Moshassuck River from the intersection of Wilbur Road and Route 146 to Barney Pond** passes through suburban areas and a golf course. This section of the river also contains **Butterfly Pond**, located in Lincoln at the intersection of Breakneck Hill Road and Great Road just upstream from the site of the historic Butterfly Mill. **(Open Space)**

3. The Moshassuck flows into **Barney Pond and Bleachery Pond**. These ponds are suitable for fishing and boating. **(Open Space)**
4. **Olney Pond**, located in Lincoln Woods State Park, is suitable for swimming but is subject to closure due to fecal counts. **(Open Space)**
5. After the **Moshassuck River** crosses Walker Street in southern Lincoln it enters an old industrial park. From here to the dam south of Moshassuck Square in Providence, the River is classified as a working river. Its quality is impaired due to combined sewer overflows as it travels from Pawtucket through Providence. Despite the impaired water quality, the river still provides habitat and offers the potential for greenways. For example, the wetland between Weeden Street and Mineral Spring Avenue in Pawtucket is a classic shrub swamp adjacent to the river, even though it is south of the uppermost sewer overflow outlet. From the Sayles Finishing Plant to the incinerator on Grotto Avenue, the canal is intact and the river corridor is suitable for development as a greenway. From the incinerator to I-95, the river has greenway value. As it merges with the West River, it retains its relatively urban character and provides habitat areas. **(Working)**
6. The **West River from its headwaters in Lincoln through Smithfield to the Wenscott Reservoir** has recreational value and is designated as an open space river. **(Open Space)**
7. The **Wenscott Reservoir** is suitable for swimming and, although in a relatively urban area, provides habitat. **(Open Space)**
8. The **West River from the Wenscott Reservoir to its confluence with the Moshassuck River** is suitable for non-contact recreational activities and may function as an open space corridor or greenway. **(Recreational)**

#### **03-03-04 Five Mile River Watershed (HUC-10)**

The Five Mile River watershed is located primarily in Connecticut. The Rhode Island portion of the watershed is located in the upland, northwestern area of the state in Burrillville and Glocester. Within Rhode Island, the Five Mile River watershed is primarily composed of ponds and reservoirs with their associated streams, and is a significant recreational resource. Water quality meets pristine classification goals.

The watershed contains substantial amounts of land in public and private conservation holdings. Public holdings include the state's George Washington Management Area, Durfee Hill, and Killingly, Management Areas.

## Segment Classifications in the Five Mile River Watershed

1. **Wakefield Pond**, located in Burrillville, is suitable for swimming and fishing and has high habitat values associated with the eastern edge of the pond. (*Open Space*)
2. **Lake Washington** is located in Glocester south of Route 44 in the vicinity of the George Washington Management Area. Although suitable for swimming and fishing, the water quality of the lake is threatened by septic systems. (*Open Space*)
3. **Bowdish Reservoir** in Glocester has high habitat values and is suitable for swimming, boating, and fishing. A significant portion of the Reservoir is surrounded by the George Washington Management Area and the 226-acre Bowdish Lake Camp. The Reservoir also provides critical habitat areas that include a floating bog. (*Open Space*)
4. **Mowry Meadow Brook** in the Durfee Hill Management Area is pristine and unimpounded. The lands owned by the Factory Mutual Insurance Company provide open space and habitat area along the Brook. (*Pristine*)
5. **Killingly Pond** is designated suitable for swimming and fishing. Located adjacent to the Killingly Wildlife Management Area, it provides seasonal recreational opportunities although it is relatively inaccessible. (*Open Space*)

## 03-03-05 Moosup River Watershed (HUC-10)

The Moosup River watershed is located primarily in Connecticut with Rhode Island portions in Glocester, Foster, and Coventry. The watershed is situated in a sparsely populated, wooded area, has few impoundments, and contains substantial amounts of land in public and private conservation holdings. Public holdings include the Nicholas Farm Wildlife Management Areas. Water quality meets pristine classification goals.

## Segment Classifications in the Moosup River Watershed

1. The **Moosup River from its headwaters in the towns of Foster and Coventry to the Rhode Island-Connecticut state line** is classified as a pristine river with wild and natural flows. Valuable for its wilderness character, it provides wildlife habitat area and a valued resource for fishing. (*Pristine*)
2. **Carbuncle Pond** is located in the Nicholas Farm Wildlife Management Area and is designated as swimmable and suitable for fishing. The area is noted for its high habitat values. (*Open Space*)



3. **Roaring Brook** is located in Coventry and flows to **Arnold, Little Grass, Great Grass, and Whitford Ponds**. Both the brook and ponds are pristine and have habitat resource values. *(Pristine)*
4. The tributary streams to the Moosup River, including **Croff Farm Brook, Keach Brook, and Mowry Brook**, are classified pristine, wild/natural. *(Pristine)*

### **03-03-06 Pawtuxet River Watershed (HUC-10)**

The Pawtuxet River watershed is located in central-western Rhode Island. The river flows generally from west to east. Its headwaters are in the hills of rural western Rhode Island; its mouth is in historic Pawtuxet Village, between the cities of Warwick and Cranston, the state's second and third largest cities. The watershed encompasses all or portions of the following communities: Coventry, Cranston, East Greenwich, Exeter, Foster, Glocester, Johnston, Scituate, Warwick, West Greenwich, and West Warwick.

The Pawtuxet River watershed comprises the Scituate Reservoir and its tributaries, the North Branch of the Pawtuxet, the Pocasset River, the Big River and its tributaries, the Flat River Reservoir and its tributaries, the South Branch of the Pawtuxet, and the main stem of the Pawtuxet. In total, the watershed contains 64 ponds, 93 brooks, 7 tributary rivers, and 18 dams.

The watershed is heavily influenced by the development patterns of the 19th and 20th centuries. With the second largest volume of water in Rhode Island and a substantial drop in elevation from its headwaters to Narragansett Bay, the Pawtuxet River watershed became a center of textile manufacturing plants. Numerous impoundments were created along the river and its tributaries, and along the banks were a series of mills and mill villages, many of which now have historical significance. In the late 19th century, this development was so intensive that an urban area emerged in the eastern Coventry-West Warwick area. Factories and villages both discharged their effluent and waste into the river, degrading water quality in the lower portions of the watershed.

As the City of Providence's population increased through the industrial era, public health became a major concern. It was decided that the northern and western portions of the Pawtuxet River watershed should be used as the source for the City's drinking water. The Scituate Reservoir water system of the Providence Water Supply Board, completed in the 1920's, now provides drinking water to nearly two-thirds of the state's population. The Big River, a major tributary of the South Branch of the Pawtuxet, was recognized as another potential drinking water resource for the state, and land to construct a large surface water reservoir was acquired. The development of this project was dropped largely because of the loss of wetlands that would have resulted; the Big River Wildlife Management Area, however, remains

available as a potential source of public water supply. The Quidnick Reservoir Association controls the Flat River Reservoir system, as well as flows into the South Branch of the Pawtuxet River. The Pawtuxet River is also the receiving body for several wastewater treatment plant discharges. During the 1970s and 1980s, the treatment plants of Cranston, Warwick, and West Warwick were upgraded to secondary treatment facilities, and most previous difficulties with their operation have been overcome. Notwithstanding these improvements, water quality on the main stem of the Pawtuxet is problematic, and an agreement was reached by the communities and the state to provide advanced wastewater treatment. The cost of these improvements is high, possibly in the vicinity of \$100 million. In the past, industrial discharges were a major cause of water pollution; however, these sources have largely been eliminated through the decline of industry, the imposition of wastewater regulations, and connection to wastewater treatment facilities.

Through the second half of the 20th century, awareness has increased relative to water pollution from nonpoint sources. Threats occur especially from septic systems, runoff, road salt applications, and construction/development activities. The areas immediately south and west of Providence have been the direct path for post-World War II suburbanization. Interstate highways I-95 and I-295 traverse the watershed; and Route 2, from the Pocasset River in Cranston through Warwick and West Warwick, has become a commercial center of development. The gains made in reducing point source pollution can be lost to nonpoint sources.

There is a high level of interest and potential for increasing recreational opportunities associated with the riverway. The North Branch is swimmable between the Gainer Dam of the Scituate Reservoir and the village of Hope, but development in the area threatens water quality. The Flat River Reservoir system (which includes the Flat River Reservoir/Johnson's Pond, Quidnick Reservoir, and Stump Pond) is currently used for swimming, boating, and fishing. In 1987, the Pawtuxet River Authority (created to develop recreational opportunities on the North and South Branch and the main stem of the river) drafted a plan for "a series of riverwalks, canoe access sites, and significant natural areas along the Pawtuxet River." Progress toward full implementation of this plan has been incremental, impeded by a lack of funds.

The purposes of the classifications for the Pawtuxet River are, first, to protect current values and uses within the watershed, especially in the Big River, Scituate, and Flat River Reservoirs and the North Branch to Hope areas; and second, to foster the goal of making the River a major recreational resource in the intensively suburbanized central portion of the state.

### **Segment Classifications in the Pawtuxet River Watershed**

1. The **Scituate Reservoir** and its tributaries are located in Foster, Scituate, and Glocester. Although these waters are classified as a water supply source, they are also rich in biodiversity of amphibian, plant, and bird life. **(Water Supply)**

2. The **North Branch of the Pawtuxet River and its tributaries from Gainer Dam at the Scituate Reservoir to Route 116** in the village of Hope are suitable for recreational swimming and fishing. Development in this area could impact water quality. **(Open Space)**
3. The **North Branch of the Pawtuxet River from the village of Hope to its confluence with the South Branch** is located in Scituate, Coventry, and West Warwick. This segment has been impacted by failing septic systems, and improvement needs to be maintained. Its resource values consist of open space, several historical mills and villages, two river walks, and industrial uses. At its confluence with the South Branch, at River Point, is a former municipal landfill that is being used for ballfields and a riverwalk. **(Open Space)**
4. The **Flat River Reservoir** system is part of the South Branch of the Pawtuxet River. Upstream of the Flat River Reservoir Dam, it is designated suitable for swimming and fishing. **(Open Space)**
5. The **South Branch of the Pawtuxet River from the Flat River Reservoir Dam to the Quidnick Dye Mill Dam** is suitable for contact recreational activities. This stretch also provides the best canoeing on the South Branch. **(Open Space)**
6. The **South Branch of the Pawtuxet River from the Quidnick Dye Mill Dam to its confluence with the North Branch** is classified non-contact recreational due to the permitted industrial discharge and the hydropower facility in Arctic. There are several historic industrial buildings along this stretch of the river. **(Recreational)**
7. Although heavily developed, **Tiogoue Lake**, located in Coventry, is suitable for swimming and boating. In addition to Briar Point Beach, it is considered good habitat for birds. **(Recreational)**
8. The **main stem of the Pawtuxet River from its confluence with the North and South Branches to its mouth in Pawtuxet Cove**, is designated for boating and other non-contact recreational activities and has habitat value. It is canoeable to the Natick Dam and also from Pontiac village to Pawtuxet village. Permitted discharges from three wastewater treatment facilities impact the water quality of this segment. From Elmwood Avenue to Pawtuxet village the river corridor provides an opportunity for a greenway. Mitigation of runoff from highways is a major issue. **(Recreational)**
9. The resource value of **Meshanticut Brook** is its waterfalls. From its headwaters to its confluence with the Pawtuxet River, the Brook is designated as a recreational open space river. **(Open Space)**

10. The **Big River** is classified as pristine with water supply value. In addition to its high quality waters, the Big River area contains open space, extremely high habitat values, and important wetlands. Its groundwater is a potential source of public water supply; i.e. wells for Kent County Water. **(Pristine)**
11. The **Pocasset River's** resource values consist of the falls area above Memorial Park, Snake Den State Park, high habitat value at its headwaters, and farms in Johnston. Cranston Print Works, an historic mill, as well as a mill village, are located downstream. The River, while currently having poor water quality and flowing through urban areas, is a potential amenity. **(portions Recreational; portions Open Space)**
12. **Mashapaug Pond, Spectacle Pond, and Roger Williams Park Ponds** are suitable for boating and other non-contact recreational activities. They are non-flushing waterbodies that receive nonpoint source pollutants and nutrients from parking lots and surface runoff. **(Recreational)**

### **03-03-07 Greenwich Bay Watershed (HUC-12)**

Greenwich Bay is an embayment within Narragansett Bay whose shorelines are bounded by Warwick and East Greenwich. The freshwater watershed comprises portions of three communities: East Greenwich, Warwick, and West Warwick. Two streams, Hardig Brook and the Maskerchugg River, flow through the watershed and deposit fresh water to Greenwich Bay. Hardig Brook drains the area west of Apponaug. The Maskerchugg River is a small stream that drains southern Warwick, east of Route 2, and the downtown portion of East Greenwich. Both Hardig Brook and the Maskerchugg are in old villages surrounded by suburban development.

Greenwich Bay has experienced increased pollution levels that caused its closure to shellfishing in 1992. The City of Warwick, in cooperation with the state, prepared a *Strategic Plan for the Reclamation of Greenwich Bay* (February 1994); reduction of nonpoint pollution sources are a major element of this plan.

Hardig Brook is noted for its open space value; two ponds are used recreationally. The Maskerchugg has "backyard" open space value and feeds Bleachery Pond. Both rivers supported modest levels of mill development into the 20th century.

### **Segment Classifications in the Greenwich Bay Watershed**

1. **Hardig Brook from its headwaters in West Warwick to Toll Gate Road** in Warwick is recreational with open space value. **(Recreational)**
2. **Hardig Brook** (and associated small ponds) **from Toll Gate Road to Gorton Pond**, are considered suitable for boating and other non-contact recreational activities, and have a resource value as urban open space, with the provision

that water quality objectives are to be consistent with the Greenwich Bay Reclamation Plan. **(Recreational)**

3. **Gorton Pond** is located in Warwick and is designated for swimming and other contact recreational activities. **(Recreational)**
4. Although the **Maskerchugg River from its headwaters to Bleachery Pond** is considered recreational, flow may not be sufficient for canoeing; the River does, however, function as an open space corridor. **(Recreational)**
5. **Bleachery Pond** is suitable for non-contact recreational activities such as boating, and has value as urban open space. **(Recreational)**
6. The **Maskerchugg River from Bleachery Pond to Greenwich Bay** is suitable for boating and other non-contact recreational activities with urban open space value. **(Recreational)**

### **03-03-08 Hunt River Watershed (HUC-12)**

The Hunt River watershed is located in East Greenwich, northern North Kingstown, the Potowomut section of Warwick, and small sections of Coventry, Exeter, West Greenwich, and West Warwick. The Hunt River forms the town line between North Kingstown and East Greenwich. The Potowomut River separates North Kingstown and Warwick. With the exception of Sand Hill Brook in North Kingstown, the tributaries of the Hunt River flow from rocky, wooded uplands, west of Route 2. These tributaries include Scrabbletown Brook, Frenchtown Brook, Mawney Brook, and Fry Brook mostly flowing through East Greenwich. Small dams and impoundments are numerous throughout the watershed, with some dating from the colonial era. The largest impoundment is Potowomut Pond, which provides good quality habitat in the western portion.

Suburban land uses have altered this rural watershed since the second half of the 20th century. Although there are still significant conservation land holdings in the Frenchtown-Davisville area, major roadways including Route 1, Route 2, and Route 4 cross the watershed. The groundwater is a sole source aquifer with a wellfield that is a public drinking water supply for the Town of North Kingstown. A specified area around the wellheads is designated by the DEM as a wellhead protection area.

### **Segment Classifications in the Hunt River Watershed**

1. **Sandhill Brook**, from its headwaters to its mouth, is located in a heavily suburbanized area. **(Recreational)**
2. The **Hunt River from its headwaters to Route 1** is designated recreational multiple use and part of a public water supply system. **(Recreational)**

3. The **Hunt River from Route 1 to Potowomut Pond** is a recreational river but with flows that may not be sufficient for canoeing. The river flows through a large marsh in a suburban area. This segment is also the receiving water for an industrial discharge. **(Recreational)**
4. **Fry Brook**, small and fast flowing, with its tributaries, is a recreational river that provides open space and is part of an agricultural landscape. **(Open Space)**
5. **Mawney Brook**, with its tributaries, is noted as a high quality water resource valuable for recreational fishing, as well as high habitat value. **(Open Space)**
6. **Frenchtown Brook**, with its tributaries, is a recreational open space river that accommodates fish ladders and has high habitat value. **(Open Space)**
7. **Scrabbletown Brook**, from its headwaters to its mouth, flows through East Greenwich and North Kingstown. In addition to high habitat value, the Brook is suitable for fishing; canoe landings are located along the stream. Potts Bog is part of the open space conservation area of the Audubon Society immediately east of Route 4; there is a canoe launching area and trail off Davisville Road. **(Open Space)**

### **03-03-09 Lower West Passage Watershed (HUC-12)**

The Lower West Passage watershed is split by Narragansett Bay between the coasts of North Kingtown and Narragansett on the west and the coast of Jamestown on the east. For the purposes of classification, this section of the plan will deal only with mainland portion of the watershed; the island portion will be covered in the Conanicut Watershed found later in this chapter.

The Lower West Passage watershed is primarily coastal except for the **Annaquatucket River**. The Annaquatucket River is located in central North Kingstown, south and west of the village of Wickford. The river flows west to east and empties into Narragansett Bay at Bissel Cove in the village of Hamilton.

There are four impoundments in the western portion of the watershed, two of which (Upper and Lower Belleville Ponds) were associated with a textile mill complex that is no longer standing. Upper Belleville Pond, especially in its northern and western portions, has high habitat value. the watershed also contains public drinking water supply wells for the Town of North Kingstown. South and east of Belleville Pond are a closed landfill and an automobile salvage yard. Around Upper Belleville Pond, a substantial portion of the land is publicly owned; both ponds are used recreationally.

From the Belleville Ponds to Bissel Cove, the Annaquatucket is a slow-moving stream flowing through relatively flat terrain and wetlands in an area that is

substantially suburbanized. A second closed municipal landfill is in the watershed. Just west of Hamilton there is another mill pond. Archaeological and historically significant sites are found in this portion of the watershed. Fish ladders have been constructed on the Annaquatucket to support anadromous fish migration.

### **Segment Classifications in the Lower West Passage Watershed**

1. The **headwaters of the Annaquatucket River** are located west of Route 4 in North Kingstown. The waters supported the colonial mill site of Lafayette. A marshy area supports wildlife habitat, and watercress is grown in the stream. The river, upstream of Belleville Pond, has high habitat value. It is also the location of a state trout hatchery. (*Open Space*)
2. **Upper Belleville Pond**, with associated wetlands, is a pristine area with important high quality habitat areas. The pristine classification is intended to protect public drinking water supply wells. The Pond functions as a pristine waterbody but experiences severe problems due to low dissolved oxygen, high nutrient inputs, and algal blooms. (*Pristine*)
3. **Lower Belleville Pond** is suitable for swimming and boating. Lower Belleville Pond is a highly nutrient-enriched pond from runoff. (*Open Space*)
4. Due to low flow conditions, the **Annaquatucket River from Belleville Pond to Bissel Cove** is not suitable for swimming or other contact recreational activities. Flow may not be sufficient for canoeing. Valued for its open space, it includes archaeologically significant areas and has an anadromous fish run. There are fish ladders at Featherbed Lane and at Mill Pond along Route 1A, as well as at Secret Lake and Belleville Pond. (*Open Space*)
5. **Secret Lake** is suitable for swimming and boating. There is a large wetland complex upstream of Secret Lake on the west side of Route 4. There is also a junk yard and former landfill in the vicinity of Secret Lake. (*Open Space*)
6. **Kettle Hole Pond** is suitable for swimming and boating. It is the site of a town well and gristmill. (*Open Space*)

### **03-03-10 Pettaquamscutt River Watershed (HUC-12)**

The Pettaquamscutt, (also known as the **Narrow River**), watershed is located in the towns of North Kingstown, South Kingstown, and Narragansett. The fresh water portion of the watershed, known as the Mattatuxet River, and its associated ponds are found in North Kingstown.

Silver Spring Lake, which is situated west of Colonel Rodman Highway, Route 1, and Route 4, is a handicapped-accessible public fishing area with a scenic waterfall. From Silver Spring Lake, the Mattatuxet passes under Route 1 past the hamlet of Shady Lea, and into Carr Pond. This area is largely undeveloped, and habitat values are high.

From Carr Pond, the Mattatuxet flows to Gilbert Stuart's birthplace, a colonial mill and National Historical Landmark; over a dam; through a raceway; and into the Pettaquamscutt River. There are anadromous fish runs on the river.

### **Segment Classifications in the Pettaquamscutt River Watershed**

1. **Silver Spring Lake**, with its tributaries, is notable for recreational use, primarily fishing. DEM stocks the lake with trout, which makes it a very popular spot on opening fishing day. Limited boating is possible; water quality is, however, threatened due to road runoff and development. (*Open Space*)
2. The **Mattatuxet River** from Silver Spring Lake to its mouth at Carr Pond has pristine water quality and is noted for its wildlife habitat and natural areas. (*Pristine*)
3. **Shady Lea Pond** is part of the Mattatuxet River, located one-third of the way between Silver Spring Lake and Carr Pond. It is located in a historic textile village and is suitable for recreation. (*Open Space*)
4. **Carr Pond** is designated as pristine and supports three of North Kingstown's public drinking water wells. There is also a Girl Scout camp on the south and west sides of the pond. (*Pristine*)
5. **Gilbert Stuart Stream**, from Carr Pond to the dam at the Gilbert Stuart Birthplace, has a fish ladder and is valued as a high quality habitat resource; it is, however, known to have high bacterial counts. (*Open Space*)

### **03-03-11 Saugatucket River Watershed (HUC-12)**

The Saugatucket River watershed is located in the eastern half of South Kingstown, in the valley between Tower Hill and Kingston Hill. Its headwaters are in the very southern portion of North Kingstown, an area known as Shermantown. From there, the river flows south through the village of Peace Dale and into Wakefield, where it goes over a falls, becomes tidal, and empties into Point Judith Pond.

The watershed north of Peace Dale was once predominantly agricultural. Little active agriculture remains, although there are some relatively large parcels of open land. Also found here are sand and gravel operations and a closed municipal landfill



called Rose Hill Landfill, a Superfund site. The environs support areas of outstanding habitat in the northern portion. Indian Lake, the largest impoundment in the watershed, is swimmable and fishable.

The Saugatucket River broadens for a mile above the dam in Peace Dale, an historic mill village. The open space quality is high, and the river is canoeable.

From Peace Dale through Wakefield, the Saugatucket is part of a densely developed town. Behind the dam at Main Street, it again broadens and has recreational potential. This potential, along with that of the tidal portion, is being actively explored by the Saugatucket River Heritage Corridor Coalition.

Fresh Meadow Brook is the Saugatucket's primary tributary stream.

### **Segment Classifications in the Saugatucket River Watershed**

1. The **Saugatucket River from its headwaters in North Kingstown to Mitchell Brook** is classified pristine with high habitat values. (*Pristine*)
2. The **Saugatucket River from Mitchell Brook to Saugatucket Road** is suitable for recreational but flow may not be sufficient for canoeing. There is still a possibility of contamination from the landfill. (*Open Space*)
3. The **Saugatucket River from Saugatucket Road to Peace Dale**, including Saugatucket Pond, is designated as suitable for canoeing and swimming although it is subject to high fecal counts during wet weather. With open spaces and landscapes associated with historic Peace Dale village the pond and adjacent land have scenic values. (*Open Space*)
4. The **Saugatucket River from Saugatucket Pond in Peace Dale to the dam at Main Street in Wakefield** has exceptional open space and recreation potential, although the water quality is threatened by nonpoint source pollution from runoff. (*Recreational*)
5. The Tri-Pond Park System, which is comprised of **Asa Pond, Rocky Brook Reservoir, and Peace Dale Reservoir**, is suitable for canoeing and other non-contact recreational activities. There is an extensive trail system in the pond area. (*Recreational*)
6. **Rocky Brook to Kersey Road in Peace Dale** is suitable for recreation and open space. (*Open Space*)
7. **Rocky Brook from Kersey Road to its confluence with the Saugatucket River** runs through historic mill villages. (*Recreational*)

8. **Indian Lake** is a recreational waterbody suitable for swimming and fishing. *(Recreational)*
9. **Indian Run Brook from Indian Lake Shores to Indian Run Reservoir**, is utilized as recreational open space. *(Recreational)*
10. **Indian Run Reservoir** is a recreational area suitable for swimming. *(Recreational)*

### **03-03-12 Wood-Pawcatuck Subbasin (HUC-8)**

The region described here is comprised of three HUC-10 watersheds, the Wood River, the Upper Pawcatuck River, and the Lower Pawcatuck River. Although this narrative section will refer to the Wood-Pawcatuck collectively, the segment descriptions that follow will be organized by each individual watershed.

The Wood-Pawcatuck subbasin, located in the southwestern portion of the state, is Rhode Island's premier freshwater recreational resource. The Wood River watershed extends into Connecticut and includes the western sections of West Greenwich, Exeter, Richmond, and the northern portion of Hopkinton. The Lower Pawcatuck watershed is located primarily in Connecticut including only the westernmost sections of Hopkinton and Westerly. The Upper Pawcatuck watershed includes all or a portion of West Greenwich, Exeter, North Kingstown, South Kingstown, Richmond, Charlestown, and Westerly.

Because river volumes and drop in elevation are modest, the Wood-Pawcatuck was not a focus for heavy industrialization in the 19th century to the extent that the Blackstone and the Pawtuxet were. Through the middle of the 20th century, most of the land remained forested or in agricultural production. Extensive public holdings and wetlands have protected river corridors from residential encroachment.

The Wood-Pawcatuck boasts of 55 miles of canoeable rivers. The primary objective in the management of this watershed is to preserve its quality as a prime recreational resource of the state. The Wood-Pawcatuck watershed contains major critical wildlife habitat areas. A second objective for its management, closely related to the first, is to maintain habitat quality.

Population growth in the watershed has been rapid since 1950, and the people living in the region depend on groundwater for their water supply. The Wood-Pawcatuck watershed is a sole source aquifer, and a third, critical management objective is to keep groundwater quality high so that its suitability as drinking water is preserved.

A prime threat to water quality is suburbanization. With the exception of a portion of Westerly, the watershed is not served by public sewers. Proper functioning and maintenance of septic systems is therefore a critical concern. Fortunately, the region is among the leaders in the consideration and establishment of wastewater management districts. Such efforts merit being made a priority but require local endorsement and approval.

A further objective is to preserve agriculture within the watershed. Agriculture has been declining in Rhode Island for more than a century, and little is left. The Wood-Pawcatuck watershed contains active agricultural operations supporting production of sod and turf, potatoes, berries, poultry, eggs, nurseries, and truck farming. These often require irrigation to be commercially viable. The Wood-Pawcatuck is the only watershed in Rhode Island where agricultural water withdrawals from rivers are a significant issue. It is also critical that the use of pesticides and fertilizers, as well as erosion and sedimentation, be managed in a manner that minimizes adverse effects on wildlife habitat, drinking water supply, and recreational uses of water. The Farmland Preservation Act (*Chapter 42-66, General Laws of Rhode Island*) allows the state to identify and acquire development rights in order to maintain farming, productive open space, and groundwater recharge areas. The Act establishes an Agricultural Land Preservation Commission to inventory and acquire development rights of remaining farmland.

During the "energy crisis" of the 1970s, conflicting views emerged as efforts to restore mill dams for electric power were poised against the restoration of anadromous fish along the Pawcatuck River. This debate gave rise to disagreements over the effectiveness of technology for protecting fish from entrapment in water intakes; the feasibility of fish ladders to permit migrating fish to bypass dams; and the relative impacts of these two activities on historic preservation, environmental enhancement, and water-based recreation.

The watershed benefits from substantial public and private conservation efforts. The state's Arcadia, Wickaboxet, Rockville, Carolina, Great Swamp, Burlingame, and Woody Hill Wildlife Management Areas, and Burlingame State Park are within it. The Audubon Society of Rhode Island has significant holdings, as does the Narragansett Indian Tribe in addition to controlling eight-hundred feet of frontage on the Pawcatuck, and the Nature Conservancy is focusing on Wood-Pawcatuck watershed land protection, particularly along the Beaver River.

Equally important in the protection of the watershed is the private non-profit citizens group, the Wood-Pawcatuck Watershed Association. The Association conducts education and monitoring programs, promotes river stewardship, and advocates development practices that preserve water quality. The Association organizes events to increase public appreciation of the value and natural beauty of the watershed; it also publishes a map for canoeists.

For the most part, water quality throughout the watershed is good to excellent. However, there are areas where it is degraded and segments where it is threatened, especially by development. Point source discharges, while not a significant issue overall in this watershed, do limit swimming uses in specific areas in the vicinity of the discharge points.

### **Segment Classifications in the Wood River Watershed**

1. **Parris Brook** from its headwaters at Tippecansett Pond to the Woody Hill Dawley Swamp is a pristine river. ***(Pristine)***
2. The **Falls River** is a pristine river with high value for recreation; it is, in fact, overused in areas. The Falls River to its confluence with **Kelly Brook** (also pristine) is the only catch and release waters in Rhode Island. This particularly benefits native brook trout. Stepping Stone Falls is a popular and notable feature. ***(Pristine)***
3. **Breakheart Brook** is a pristine natural river with high habitat value. Breakheart Brook flows through the Alton Jones campus of URI in West Greenwich. ***(Pristine)***
4. **Phillips Brook and Acid Factory Brook** converge to form the **Flat River**. All are pristine natural rivers with high habitat value. ***(Pristine)***
5. **Roaring Brook** feeds Boon Lake and Browning Mill Pond. Except for a few short stretches it is pristine. Water quality is, however, threatened by waterfowl and nonpoint source pollution. ***(Pristine)***
6. **Boon Lake** is completely surrounded by houses, some within less than 200 feet of the banks. Many of these houses started as summer cottages which are now used all year. It is important that the houses surrounding the Lake be targeted for regular septic system inspections. ***(Recreational)***
7. The **Wood River from its headwaters to Barberville** at Old Nooseneck Hill (a.k.a. Arcadia) Road is a pristine river with high habitat, scenic, and natural landscape values. It is highly used as a recreational and educational resource. ***(Pristine)***
8. The **Wood River from Barberville to Route 138 in Hope Valley** is a recreational open space river suitable for swimming and fishing. ***(Open Space)***
9. The **Wood River from Route 138 in Hope Valley to its confluence with Brushy Brook** is urbanized and experiences septic system failures, which are exacerbated by the geology. ***(Recreational)***

10. The **Wood River from its confluence with Brushy Brook to its confluence with the Pawcatuck River**, is a very scenic stretch that is suitable for fishing and swimming. (*Open Space*)
11. **Brushy Brook from its headwaters in Exeter to Locustville Pond** is suitable for swimming and fishing. (*Open Space*)
12. **Brushy Brook, from Locustville Pond to its confluence with the Wood River**, is suitable for canoeing and other non-contact recreational activities. (*Open Space*)
13. **Locustville Pond** may be suitable for fishing and swimming but has possible problems from septic system failure. The Pond contains noxious aquatic plants that the local pond association is treating with herbicides. (*Open Space*)
14. **Yawgoog Pond** is suitable for swimming and other contact recreational activities. It is also a public drinking water supply for Camp Yawgoog. (*Water Supply*)
15. **Wincheck Pond** is suitable for swimming and fishing. (*Open Space*)
16. **Blue Pond** is pristine with high habitat value. (*Pristine*)
17. **Long Pond and Ell Pond** as well as their headwaters, are pristine waterbodies with high habitat value. The quality is threatened by acid rain. (*Pristine*)
18. **Ashville Pond** is suitable for swimming and fishing. (*Open Space*)
19. **Canonchet Brook**, from its headwaters in Hopkinton to its confluence with the Wood River, is suitable for recreation but it has been impacted by a condominium community and golf course that has denuded the brook in areas. (*Open Space*)

### **Segment Classifications in the Upper Pawcatuck River Watershed**

1. The **Usquepaug River** from Glen Rock Reservoir to its confluence with Chickasheen Brook in the Great Swamp, is suitable for recreation and open space. Due to its location in an area of prime agricultural land, withdrawals are substantial. (*Open Space*)
2. **Locke, Fisherville, and Queens Fort Brooks**, as well as the **Queen River** are pristine with high habitat resource values. The Queen River runs through the Eppley Wildlife Refuge, which is an important Audubon Society refuge. There is a permitted wastewater discharge from the Ladd School on the Queen River. The southern portion of the River is impacted by water withdrawals for agricultural use. (*Pristine*)

3. The **Chipuxet River**, from its headwaters in Exeter and North Kingstown to Taylor's Landing at Route 138, provides wildlife habitat and is also a wellhead protection area. (*Open Space*)
4. The **Chipuxet River** from Taylor's Landing to Worden's Pond is a pristine river with high habitat values and is used for canoeing. (*Pristine*)
5. **Hundred Acre Pond** and **Thirty Acre Pond** are designated for swimming and fishing. (*Open Space*)
6. **Yawgoo** and **Barber Ponds** are both suitable for swimming and other contact recreational activities. (*Open Space*)
7. The **Pawcatuck River** from Worden's Pond to its confluence with the Usquepaug River is a natural river with high habitat values. (*Pristine*)
8. From their headwaters to their mouths, **Meadow Brook**, the **Beaver River**, and **Chickasheen Brook** provide habitat and are areas of significant water withdrawals for agriculture; water volumes may fluctuate. (*Open Space*)
9. **Tucker Pond** and **Alewife Brook**, from their headwaters to Worden Pond, are suitable for swimming and fishing, and have high habitat value. (*Open Space*)
10. **Worden's Pond** is noted as a recreational water body designated for swimming and fishing. It has high habitat value and is associated with its proximity to the Great Swamp; it is host to a variety of migratory birds and osprey. It is, however, threatened by shoreline development. (*Open Space*)
11. The **Pawcatuck River**, from the Usquepaug River to the Kenyon Piece Dyeworks wastewater outfall, is suitable for swimming and fishing. From that point to Horseshoe Dam in Shannock, the river is suitable for canoeing and other non-contact recreational activities. (*Open Space*)
12. The **Pawcatuck River**, from Shannock to Route 91 just south of the Carolina Management Area, is pristine and of exceptional habitat and natural quality. It is suitable for swimming, fishing, and canoeing. (*Pristine*)
13. The **Pawcatuck River** from Route 91 to Bradford is suitable for swimming, fishing, and canoeing; it also has high habitat value. (*Open Space*)
14. The **Pawcatuck River**, from Bradford to the dam (where it becomes tidal) upstream from the village of White Rock, is suitable for canoeing and other non-contact recreational activities. This is attributed to permitted industrial point source discharges and possibly leachate from the landfill adjacent to Chapman

Road. Bradford Bend is a high habitat area from north to south to west. (***Open Space***)

15. **Watchaug Pond** is suitable for swimming and fishing. It is located in the Burlingame Wildlife Management Area and State Park and has high habitat value as well as very high recreation usage. (***Open Space***)
16. **Poquiant Brook**, from Watchaug Pond to the Pawcatuck River, is suitable for swimming and other contact recreational activities and has high habitat value. (***Open Space***)
17. The **Tomaquag Brook** from its headwaters to its confluence with the Pawcatuck River is pristine, provides significant wildlife habitat, and is a natural area river. (***Pristine***)
18. **Chapman Pond** and **Aguntaug Brook**, to the confluence with the Pawcatuck River, are recreational with high habitat value. Due to an adjacent landfill, swimming and other contact recreational activities are not recommended. (***Open Space***)

### **Segment Classifications in the Lower Pawcatuck River Watershed**

1. The **Ashaway River** from its headwaters to its confluence with the Pawcatuck River is pristine, provides significant wildlife habitat, and is a natural area river. (***Pristine***)

### **03-03-13 Ten Mile River Watershed (HUC-10)**

The Ten Mile River watershed forms Rhode Island's eastern boundary with Massachusetts through the cities of Pawtucket and East Providence. The river principally drains an area that extends into North Attleboro and Attleboro, Massachusetts.

In Rhode Island, the river connects a series of ponds and reservoirs associated with open space and recreational areas including Slater Park, Pawtucket Country Club, and the Agawam Hunt Club. The cities of Pawtucket and East Providence have recognized the substantial recreational potential and open space value of the Ten Mile River. In 1993, a transportation funding application was jointly submitted by the cities to establish a greenway/bike path in the watershed.

Although the Ten Mile River watershed has good open space value, water quality is only fair as the river flows through relatively intensively developed older communities.

## Segment Classifications in the Ten Mile River Watershed

1. The **Ten Mile River from the Massachusetts state line to the dam in Slater Memorial Park** contains open space areas and has recreational value although current water quality may not be sufficiently suitable for swimming and other contact recreational activities. The character of this segment's corridor varies from residential development to parks and open space including the Ten Mile River Reservation and Slater Memorial Park. This segment is canoeable and also has high habitat value. **(Open Space)**
2. The **Ten Mile River from the dam in Slater Park to Central Pond** is suitable for non-contact recreational activities; river flow may not, however, be sufficient for canoeing. The river also has good open space value. **(Open Space)**
3. **Central Pond** and the **James V. Turner Reservoir** in the City of East Providence are protected waterbodies in an urban area. These waterbodies are suitable for non-contact recreational activities. **(Recreational)**
4. The **Ten Mile River from the Turner Reservoir to Pawtucket Avenue in East Providence** is suitable for non-contact recreational activities. **(Recreational)**
5. The **Ten Mile River from Pawtucket Avenue to Omega Pond** is suitable for non-contact recreational activities and urban open space. **(Recreational)**
6. **Omega Pond** is suitable for non-contact recreational activities and provides urban open space. In addition to providing cooling water for industrial purposes, Omega Pond is a resource for shad fishing. **(Recreational)**

## 03-03-14 Palmer River Watershed (HUC-10)

The Palmer River watershed is divided between Rhode Island and Massachusetts with the majority located in Massachusetts. The Runnins River, which is the main stream in the Rhode Island portion of the watershed, forms part of the state boundary. The watershed through East Providence is heavily developed, and Seekonk, Massachusetts, has undergone intensive development during the last two decades. Development patterns have a major impact on the watershed and the quality of the Runnins River. The Runnins connects to the Barrington River which empties into Hundred Acre Cove in Barrington. It is rated among the largest and most productive salt marshes in Rhode Island but has been vulnerable to closure to shellfishing due to pollution.

For decades, the Runnins River was more or less out of sight and out of mind. Little attention was paid to its condition. A price was paid for this neglect. Shellfishing was banned in Hundred Acre Cove by DEM in the spring of 1993. This era of neglect, however, ended with the organization of the Pokanoket Watershed Alliance.



Local conservation commissions, planning boards, and land trusts are also active advocates of the watershed's protection. The University of Rhode Island, Graduate Curriculum in Community Planning, conducted an award-winning study of the river. The National Park Service's River and Trails Program has provided technical assistance to bring attention to watershed values and potential. The Pokanoket Watershed Alliance has set the goal of restoring and maintaining the water quality of the Runnins River.

The stresses on the watershed are substantial. Although Barrington and East Providence are sewered communities, Rehoboth and Seekonk, Massachusetts, which are not sewered, are still being developed, resulting in increased impacts from construction and major shopping plazas. Infiltration from septic systems and runoff are continuing problems; groundwater and surface water contamination from the 800 acre Mobil Oil site in East Providence is being remediated.

### **Segment Classifications in the Palmer River Watershed**

1. The **Runnins River** from its headwaters to the Barrington River is suitable for recreation, although flow may not be sufficient for canoeing. (***Open Space***)
2. The **Barrington River** to Hundred Acre Cove is suitable for recreation. The river also has open space value, with recognition that the watershed comprises an ecologically significant salt marsh and estuary. (***Open Space***)

### **03-03-15 Mount Hope Bay Watershed (HUC-12)**

The Mount Hope Bay watershed is located in the eastern portion of Warren and Bristol Rhode Island, with the bulk of the watershed located in Swansea, Massachusetts. The Rhode Island portion of the watershed has salt and fresh water components; the fresh water portion of the Kickemuit River is a public drinking water supply. Priorities for the fresh water segment of the watershed include protection of the public drinking water supply, agriculture, and open space. The freshwater portions of the river are highly impacted by development and runoff from agricultural sites. The salt water areas of the watershed have recreational and scenic value. The Kickemuit River area is highly scenic and agriculturally important; agricultural best management practices are being implemented.

The Warren and Swansea areas are suburbanizing. The stresses on the watershed are: agriculture, an historical use that needs to be respected and preserved; older development and its by-products, such as landfills that have been closed; and new suburban residential and commercial development. Based on citizen monitoring, there are indications that water quality is improving as a result of local efforts.

Overall, the watershed area is highly scenic and agriculturally important. The recreational and scenic value of the farms and watershed have been recognized by the Town of Warren. The community has noted that:

"....scenic views of rural areas and vistas of its waterbodies define Warren as a Town with a dual maritime and agricultural background that has retained the sense of solitude, peace, and independence that these occupations engendered." (Town of Warren, *Recreation, Conservation, and Open Space Plan*, 1990, p. 31).

### **Segment Classifications in the Mount Hope Bay Watershed**

1. The **Warren Reservoir** and its tributaries are a public drinking water supply. Although impacted by development, it has high habitat value. (**Water Supply**)

### **03-03-16 Conanicut Island (Jamestown) Watershed**

Conanicut Island is actually divided into two HUC-12 watersheds, one running along the western side of the island and one running along the eastern side. The Rivers Council concluded that from a practical standpoint, the island should be treated as a single entity. The watershed is transected by two of the island's main roads, Eldred Avenue and North Road. A four-lane highway (Route 138 connecting the Jamestown and Newport Bridges) was built through the watershed, which is the source of the public drinking water supply for the Town of Jamestown. Highway runoff was diverted in conjunction with the road construction.

The watershed contains historic farms and valuable wetlands. Together these constitute an exceptional cultural and scenic resource that is actively being preserved.

### **Segment Classifications in the Conanicut Island Watershed**

1. **North Pond Reservoir** and **South Pond Reservoir** and their associated tributaries are a public drinking water supply that are threatened by runoff from roads and agricultural sites. The area has high habitat value south of the reservoir. There is also a historic farm and agricultural area. (**Water Supply**)

### **03-03-17 Aquidneck Island Watershed**

Technically Aquidneck Island is divided into five HUC-12 watersheds. The Rivers Council concluded that from a practical standpoint, the island should be treated as a single entity.

The Newport water supply system obtains much of its source water from the ponds and brooks of the Maidford River, Lawton Valley Reservoir, and Bailey Brook. The Bailey Brook flows to Easton Pond for storage and intake to the water treatment facility. The Maidford River and Paradise Brook flow into Nelson Pond.

The DEM has found that the entire system "is either threatened or impacted by nonpoint source pollution - namely agricultural, residential, and highway run-off" (RI DEM, *Nonpoint Source Pollution Management Plan for the Newport Surface Water Supply Watersheds*, June 1993, p.13). In southern Middletown and Newport, where development is densest, conditions adversely affecting water quality are the worst.

Aquidneck Island has historically important agricultural areas. Together, the reservoirs and agriculture constitute scenic and open space resources that contribute to the character of Newport County. The Natural Resources Conservation Service's (NRCS) Eastern Conservation District is actively promoting agricultural "best management practices" within the watershed. Saint Mary's Pond is stocked with trout, and fishing from shore is permitted.

### **Segment Classifications in the Aquidneck Island Watershed**

1. **Lawton Valley Reservoir, Sisson Pond, and St. Mary's Pond**, closely grouped together in Middletown, are elements of the Newport water system. They have scenic value, high habitat value, and provide open space. **(Water Supply)**
2. **Bailey Brook**, which flows to **Green End Pond**, and the adjacent **Easton Pond** are drinking water supplies and have scenic and open space values. There is residential and commercial development, as well as agricultural activity in the vicinity of Green End Pond. **(Water Supply)**
3. The **Maidford River** and **Paradise Brook** flow to Nelson Pond and provide drinking water supplies although stressed by nutrients. The area is agricultural, as well as the location of the Norman Bird Sanctuary. **(Water Supply)**
4. **Nelson Pond and Gardiner Pond**, are components of the Newport water system. There is residential and commercial development, as well as agricultural activity in the vicinity of Nelson Pond. **(Water Supply)**

### **03-03-18 Tiverton-Little Compton Watershed**

The Tiverton-Little Compton watershed is actually a composite of portions of five HUC-12 watersheds that encompasses the towns of Tiverton and Little Compton. Stafford Pond is located in Tiverton. The western and northwestern portions of the watershed are predominantly undeveloped. The eastern and northeastern shorelines of the pond have been extensively developed with residential and water-related commercial development.

According to an NRCS soil assessment, most of the area around Stafford Pond has "severe" constraints for individual sewage disposal systems (ISDS) due to wetness or slow percolation rates. Although water quality remains suitable to support its use as a public drinking water supply, the potential for contamination exists due to failed septic systems, as well as agricultural, boating, and other recreational uses.

Nonquit Pond in Tiverton and Watson Reservoir in Little Compton are connected to the Newport water supply system by a pipeline that crosses the Sakonnet Passage.

### **Segment Classifications in the Tiverton-Little Compton Watershed**

1. **Stafford Pond** is a public water supply, with recreational open space contact uses and high habitat values on the undeveloped northwest side of the pond. There is also a dairy farm in the vicinity of the pond. It appears that Stafford Pond is less protected from degradation than any other public water supply body in the state. **(Water Supply)**
2. The ponds and brooks of the **Nonquit Pond** and **H.E. Watson Reservoir** watershed are pristine public water supplies of the Newport water system. Nonquit Pond has scenic and high habitat value. Watson Reservoir also has scenic value. **(Water Supply)**

### **03-03-19 Block Island Watershed (HUC-12)**

Block Island's watershed is composed of a number of small ponds that are part of a sole source aquifer system. The island has high-quality habitat areas and a great deal of land dedicated to conservation. The local commitment to preserve the island's unique natural resources is strong, and preservation of water quality in the ponds contributes to meeting this objective.

### **Segment Classifications in the Block Island Watershed**

1. **Sands Pond** and **Fresh Pond** are public drinking water supplies and high quality habitat areas. **(Water Supply)**
2. The balance of the **Island's ponds** are pristine, critical habitat areas. **(Pristine)**